SPECIFICATION AMENDMENTS

The pages referred to below are pages of the substitute specification.

Pages 1-2, please amend the paragraph beginning at line 25 on page 1 as follows:

--A double-row ball bearing is constructed by concentrically combining a spindle 2, which has a pair of deep inner race ~~groove~~ grooves in an outer peripheral wall thereof as shown in FIG. 12(A), with an outer race 4, which has a pair of deep outer race grooves 3,3 in an inner peripheral wall thereof as depicted in FIG. 12(B), and then rotatably inserting plural balls 5,5 between the inner race grooves 1,1 and the corresponding outer race grooves 3,3 as illustrated in FIG. ~~12(A)~~ 12(C). FIG. 12(C) also shows retainers 6,6 for holding the balls 5,5 at equal angular intervals and seals 7,7 for preventing dust and the like from penetrating into the ball-inserted parts.--

Page 6, please amend the paragraph beginning at line 11 as follows:

--Described specifically, an end face of one of the inner races, i.e., of the inner race 11 located on the right-hand side as viewed in FIG. 14 is brought into abutment against a stop ring 12 and the other inner race, i.e., the inner race 11 on the left-hand side as viewed in FIG. 14 is pushed toward the stop ring 12, whereby a preload is applied. The left-hand inner race 11 is fixed on the spindle 2 by an adhesive ~~or shrinkage fitting~~. It is therefore necessary to continuously push the left-hand inner race 11 toward the stop ring 12 under a load equivalent

to the preload until the adhesive solidifies ~~or the left-hand inner race so heated shrinks~~.--

Page 8, please amend the paragraph beginning at line 3 as follows:

--Although illustration by drawings is omitted, Japanese Patent Application Laid-Open (Kokai) No. SHO 61-145761 and U.S. Patent No. 4,713,704 discloses such a construction that one of double-row inner race grooves is formed in an outer peripheral wall of a spindle, the other inner race groove is formed in an outer peripheral wall of an inner race externally fitted on the spindle, and the inner race is ~~adhered and~~ fixed through adhesive or press-fitting to the spindle with balls being applied with an appropriate preload.--

Pages 13-14, please amend the paragraph beginning at line 21 on page 13 as follows:

--The above-described preloading methods and manufacturing methods according to the present invention permit the assembly of a rolling bearing without damaging ball rolling surfaces, the double-row inner race grooves and the double-row outer race grooves of each ball. The assembly work of the rolling ~~baring~~ bearing is therefore simple and easy. The preloaded rolling bearing can be manufactured at low cost with small dimensions while making it possible to achieve high-accuracy support for rotation. Owing to the avoidance of damage during its manufacture, the rolling bearing so manufactured can exhibit high performance, durability and reliability.--

Pages 17a-18, please amend the paragraph beginning at line 6 on page 17a as follows:

--The first embodiment of the present invention will now be described with reference to FIGS. 1(A) through 1(D). In a spindle 15, a small-diameter portion 15a and a large-diameter portion 15b are connected at a stepped portion 15c as shown in FIG. ~~15(A)~~ 1(A). In an outer peripheral wall of the large-diameter portion 15b, said outer peripheral wall serving as a first peripheral wall, a deep inner race groove 16 is formed as a main race groove. An inner race 17 has an inner diameter which is slightly smaller than an outer diameter of the small-diameter portion 15a in a free state. This inner race 17 defines a subordinate inner race groove 18 of the deep groove type in an outer peripheral wall thereof.--

Pages 19-20, please amend the paragraph beginning at line 24 on page 19 as follows:

--As a fifth step, the inner race 17 is finally displaced axially [i.e., leftwards as viewed in FIG 1(D)] on the outer peripheral wall of the spindle 15 toward the stepped portion 15c, whereby the pitch between the main inner race groove 16 and the subordinate inner race groove 18 is shortened to the pitch P_1 which is required to apply the predetermined preload. At this point, the plural balls 5,5 ~~has~~ have been applied with the predetermined preload so that the bearing is completed as a preloaded rolling bearing. Even at the time of completion of the assembly, there is a spacing between the stepped portion 15c and a proximal end face of the inner race 17.--

Pages 29-30, please amend the paragraph beginning at line 14 on page 29 as follows:

--The control 34 governs the feeding of compressed air to the respective pushers 33a, 33b and also the feeding of the working fluid to the pusher 31 adapted to push the inner race 17b. Where the inner race 17b is pushed onto the spindle 2 to apply an appropriate preload to the individual balls 5, 5 upon manufacture of the rolling bearing, the paired pushers 33a, 33b are operated alternately and while measuring by the displacement sensor 35 displacements of the outer race 19 caused by the alternate operation of the pushers 33a, 33b, the working fluid is fed to the pusher 31 to push the inner race 17b by the pushing arm ~~31~~ 32. As a consequence, the inner race 17b is press fitted on the spindle 2. When the displacement has become substantially equal to the preset value, the feeding of the working fluid to the pusher 31 is stopped to complete the pushing work.--

Page 45, please amend the paragraph beginning at line 1 as follows:

--The following are embodiments of controlling the preload in the method of preloading the ~~preloa-adjustable~~ preload-adjustable bearing apparatus as mentioned above.--

Page 51, please amend the paragraph beginning at line 9 as follows:

--The parameter of press-in condition may be a pressure on ~~on~~ the third and fourth raceways moved closer to each other, and the third and fourth raceways are moved closer to each other while detecting the pressure, and stopped when the pressure increases to a predetermined value. In this case, it is

desirable for smooth operation that a temperature difference is produced between the third and fourth raceways and the second member to reduce or eliminate the interference, and removed after the third and fourth raceways moved closer to each other are stopped.—

Pages 58-59, please amend the paragraph beginning at line 13 on page 58 as follows:

--Another preload-controlled bearing apparatus comprises first and second members which are relatively rotatable to each other, and first and second ball rows which are provided radially between the first and second members and have a plurality of balls, respectively, the first member having first and second raceways which are axially juxtaposed and prevented from being closer to each other, the second member having a third raceway which is opposed to the first raceway of the first member with the first ball row therebetween, and a fourth raceway which is axially juxtaposed to the third raceway and opposed to the second raceway of the first member with the second ball row therebetween, the third and fourth raceways fitted onto the second member in a relatively movable interference relationship, such that the third and fourth raceways are moved toward ~~the~~ each other with an axial force relatively applied to the third and fourth raceways, and the first member formed with first and second raceways in a single body, the first member formed separately from the third and fourth raceways, each of the raceways formed in an arcuated shape in cross section, specifically in a deep groove type, and the third and fourth raceways pressed closer to each other, wherein the preload is applied to the bearing apparatus.--

Pages 59-60, please amend the paragraph beginning at line 11 on page 59 as follows:

--In the method of the present invention, when the preload is applied to the bearing apparatus in a manner that the third raceway is prevented from being more spaced from the second member, and the fourth raceway is fitted onto the second member in a relatively movable interference relationship, such that the fourth raceway is moved toward the third raceway with an axial force relatively applied to the third and fourth raceway and the second member, or in a manner that the third and fourth raceways are fitted onto the second member in a relatively movable interference relationship, such that the third and fourth raceways are moved toward each other with an axial force relatively applied to the third and fourth raceways, the pre-load may be controlled by the steps of relatively applying the axial force to the fourth raceway and the second member so as to move the fourth raceway to the third raceway while detecting a ~~responce~~ response to a vibration applied to at least one of the fourth raceway and the second member of the bearing apparatus and stopping the axial force when the response reaches a predetermined value, thereby applying the preload to the bearing apparatus.--